

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/AT2004/000277

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H02M3/335

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 953 219 A (MATSUMOTO TADAHICO) 14 September 1999 (1999-09-14) column 7, line 1 - line 30; figures 1-2d	1-4
A	US 5 768 118 A (HO J HOWARD ET AL) 16 June 1998 (1998-06-16) columns 12,13; figure 3a	1
A	US 5 408 402 A (NONNENMACHER ULRICH) 18 April 1995 (1995-04-18) column 6, line 32 - line 35; figure 3	1
A	US 2003/103360 A1 (HATAKEYAMA HARUHIKO ET AL) 5 June 2003 (2003-06-05) paragraph '0086!; figure 1	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

26 November 2004

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06/12/2004

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5953219	A	14-09-1999	JP 3230475 B2	19-11-2001
			JP 11146647 A	28-05-1999
			DE 19851248 A1	24-06-1999
			GB 2331190 A ,B	12-05-1999
US 5768118	A	16-06-1998	US 5757627 A	26-05-1998
			US 5745358 A	28-04-1998
			US 5764495 A	09-06-1998
			US 5841641 A	24-11-1998
			US 5745359 A	28-04-1998
US 5408402	A	18-04-1995	EP 0498917 A1	19-08-1992
			AT 124824 T	15-07-1995
			DE 59105933 D1	10-08-1995
US 2003103360	A1	05-06-2003	JP 2003235256 A	22-08-2003
			CN 1424812 A	18-06-2003